Review hints for the Unit 4 Exam:

**Cell Communication**

* Cell membrane protein receptor types
* Bacterial cell communication
* How signal transduction pathways work in general
* Epinephrine signal transduction pathway
* Lipid soluble signal process
* How do some hormones produce many different responses
* How are phosphorylating cascades useful

**Cell Cycle and Mitosis**

* How are centromeres related to chromatids
* How are chromatids related to chromosomes
* What happens during the phases of the cell cycle (G0, G1, G2, S, M)
* What are spindle fibers and what are they for and when are they produced
* What is the difference between cyclins and CDK’s
* How is MPF used in the cell cycle
* How is cancer affected by density dependent factors and anchorage dependence
* What happens at the checkpoints
* What are the properties of cancerous cells
* Mitotic differences between plant and animal cells

**Meiosis**

* Diploid cells vs. haploid cells
* Processes that occur during meiosis 1 and meiosis 2
* Comparing and contrasting meiosis and mitosis
* What is a tetrad
* What does “2n” mean

Review material from Unit 3 – cell respiration and photosynthesis